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ESTIMATES OF TIMBER PRODUCTS OUTPUT AND PLANT RESIDUES, ARIZONA, 1969

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ABSTRACT

The 1969 Arizona roundwood products output decreased to 88,474 MCF since the 1966 estimate of 89,873 MCF. Round pulpwood production increased to 7,622 MCF from 6,647 MCF in 1966. The estimated volume of plant residues (including bark) from the lumber industry was 44,908 MCF. Of this volume, 24,169 MCF were used, mainly for pulpwood and fuel.

The output of roundwood timber products in Arizona in 1969 was 88,474 MCF, somewhat less than the 1966 output of 89,873 MCF. This represents a discontinuance of the gradual upward trend evident since 1952 (fig. 1).

Saw logs as usual were the predominant product, accounting for nearly 75 percent of the volume of all roundwood products (table 1). Saw log output was 66,129 MCF (423,908 MBF),² up 6 percent from that of 1966. Pulpwood volume increased to 7,622 MCF, about 15 percent since 1966. The output of all other roundwood products combined decreased about 29 percent since 1966; most of the decrease was accounted for by posts, fuelwood, and miscellaneous farm timbers. A different method for estimating output of mine timbers, posts, and fuelwood was used in 1969; thus, this may account for part of the decrease in the output estimate.

An increase in logging residues from growing stock³ in 1969 was related to the increase in roundwood products output. The 1969 volume of logging residues was 8,033 MCF, about 524 MCF more than in 1966.

¹This paper is based on the 1969 Products Survey conducted by the Forest Survey Research Unit of the Intermountain Forest and Range Experiment Station during 1970. The author is in charge of the products and timber removals phase of the Forest Survey at Intermountain Station.

²International 1/4-inch log rule is used throughout this report for board-foot volumes of roundwood.

³The net cubic-foot volume of live sawtimber and poletimber trees cut or killed by logging on commercial forest land and not converted to timber products.

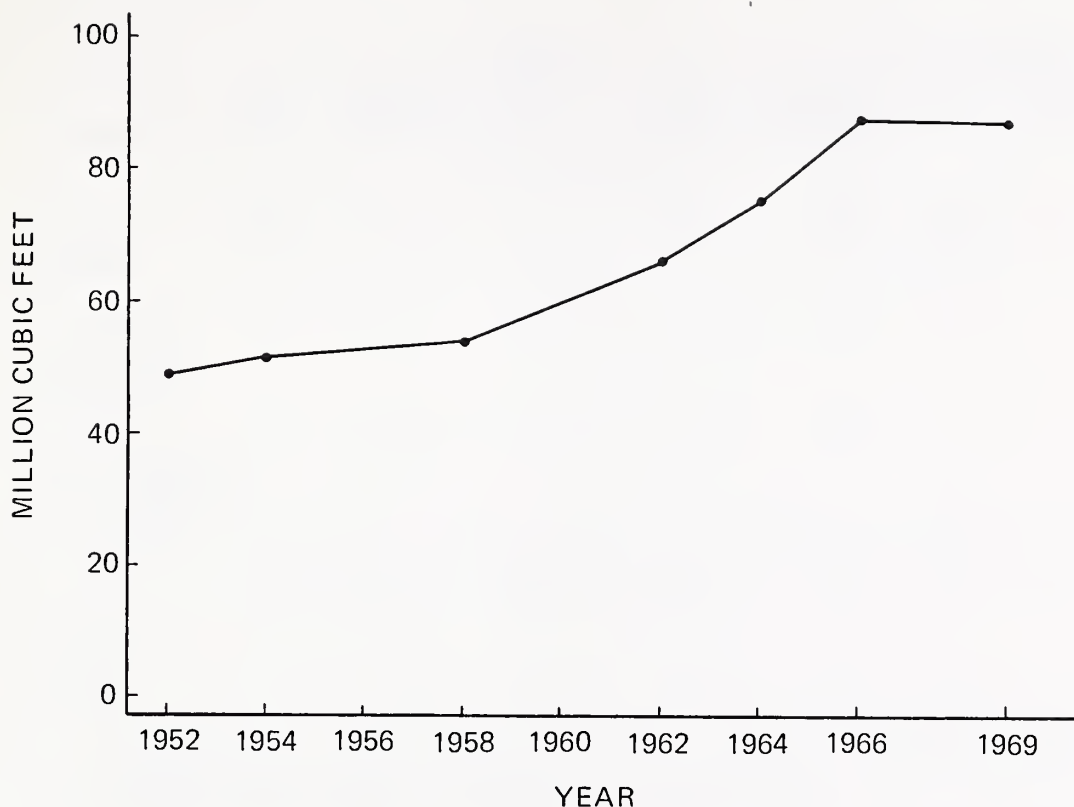


Figure 1.--Arizona roundwood products output, 1952-1969. (Plotted volumes through 1966 are taken from USDA Forest Service Resource Bull. INT-9, p. 25, 1970.)

About 87 percent of the mill receipts of saw logs in 1969 was ponderosa pine (table 2); an additional 7 percent was Douglas-fir. The true firs, Engelmann spruce, limber pine, and aspen accounted for the remaining 6 percent of receipts.

Coconino County again led in saw log output but the 32 percent of the State total it supplied was almost 10 percent less than in 1966. Apache County was second and also supplied about 10 percent less of the State total than in 1966. Third ranking Navajo County, on the other hand, increased its production to 23 percent of the State total as compared to 13 percent in 1966. Greenlee and Graham Counties combined produced over 16 percent of Arizona's saw logs in 1969, up 13 percent from 1966.

Table 2 is based on responses from all known active sawmills in Arizona and the estimates presented are without sampling error.

In 1969, 63 percent of the volume of coarse and fine residues combined was utilized as compared to approximately 59 percent in 1966.

Estimates of plant byproducts and residues included volume of bark for the first time. Table 3 shows that about one-fourth of the bark volume was used for fuel, live-stock bedding, and mulch. About 43 percent of the fine residue volume was used, mostly for fuel; and about 85 percent of the coarse residue volume was utilized, principally for pulp chips.

Table 1.--Output of roundwood products from Arizona timberlands by species, 1969

Product	:	Species					:	All species	
	:	True	Engelmann	Ponderosa	Douglas-	Other	:	Volume	Percent
	:	firs	spruce	pine	fir	species ¹	:		
- - - - - Thousand cubic feet - - - - -									
Saw logs	3,154	782	57,255	4,648	290	66,129	74.8		
Pulpwood	23	23	7,576	--	--	7,622	8.6		
Mine timbers	--	--	278	--	11	289	.3		
Miscellaneous industrial wood ²	--	--	284	6	163	453	.5		
Posts, fuelwood, miscellaneous farm timbers	--	--	279	--	13,702	13,981	15.8		
Total	3,177	805	65,672	4,654	14,166	88,474	100.0		
Percent of total	3.6	.9	74.2	5.3	16.0	100.0			

¹Includes juniper; limber, pinyon, and whitebark pines; aspen, cottonwood, and other hardwoods.

²Includes excelsior bolts, house logs, and commercial poles.

Table 2.--Mill receipts of saw logs from Arizona timberlands by species and county of origin, 1969

County	Species						All species	
	True	Engelmann	Ponderosa	Limber	Douglas-	Aspen	Volume	Percent
	firs	spruce	pine	pine	fir			
board - - - - - Thousand ~~cubic~~ feet ¹ - - - - -								
Apache	6,127	1,267	84,187	1,391	14,315	112	107,399	25.4
Coconino	5,278	3,250	124,091	--	3,124	--	135,743	32.0
Gila	--	--	14,029	--	--	--	14,029	3.3
Graham	--	--	10,477	--	--	--	10,477	2.5
Greenlee	3,292	499	44,341	337	9,745	--	58,214	13.7
Navajo	5,521	--	89,489	--	2,432	--	97,442	23.0
Pima, Yavapai	--	--	403	22	179	--	604	.1
Total	20,218	5,016	367,017	1,750	29,795	112	423,908	100.0
Percent of total	4.8	1.2	86.6	.4	7.0	(²)	100.0	

¹International 1/4-inch log rule.

²Less than 0.05 percent.

Table 3.--Estimated volume of used and unused plant residues
from the lumber industry in Arizona, 1969

Year	Bark			Coarse ¹			Fine ²		
	Total	Used	Unused	Total	Used	Unused	Total	Used	Unused
----- Thousand cubic feet -----									
1969	10,578	2,553	8,025	16,475	14,006	2,469	17,855	7,610	10,245

¹Material suitable for chipping, such as slabs, edgings, and trimmings.

²Material such as sawdust and shavings.

